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PARKINSONISM TREATED BY GLOBUS PALLIDUS INJECTION

by

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POST-ENCEPHALITIC Parkinsonism occurs as a result of infection with the virus of Encephalitis lethargica There may be no history of an 'acute attack' the onset of Parkinsonism being the only sign of progressive activity of the virus in the mid-brain extrapyramidal nuclei (substantia nigra and sub-thalamic region). The rigidity may be the residium of an acute attack or may follow a complete recovery from such an attack after a period as long as nine years (as in our case) (Savill). The condition may remit but rarely improves and is prone to sudden exacerbations.

The distressing motor disorders like tremors, rigidity and grotesque athetoid movement seem to justify surgical procedures. More commonly, as a late result of the epidemics of 1918–36, one sees post-encephalitic Parkinsonism and recent experience suggests that surgical treatment may offer the benefit to patients of this particular group (Feindel, 1954)

In a general way it seems to be true that relief can only be obtained surgically at considerable expense to voluntary use of the limb. Recent studies however show that this disadvantage may be largely obviated and these new developments offer the most hopeful approach to future treatment and to the understanding of the mechanisms underlying involuntary movements.

Anatomy and Physiology. Brodal (1948) defines the extra pyramidal system as consisting of all tracts and nuclei which form the substrate for motor functions other than the pyramidal tract and its site of origin in the cerebral cortex. The detailed studies by Lassek (1950) indicate that only about 5 per cent of the nerve fibres in the pyramidal tract of the medulla arise from the giant pyramidal cells in the area of the motor cortex, some two-thirds of the fibres being derived from cortical cells in front of and behind the precentral motor convolution.

Although these and other findings suggest that such a separation between pyramidal and extra-pyramidal system is rather arbitrary, it has certain practical advantages for purposes of discussion.

The extra pyramidal motor system may be considered anatomically to include the cortex of the posterior half of the frontal lobe and the anterior half of the parietal lobe. From here complex pathways cascade downward through the sub-cortical masses of grey matter which make up the basal ganglia. First lines are the caudate nucleus and the putamen which are structurally similar and together are termed the striatum. The putamen in turn is seen grossly to make up the lateral part of the lentiform nucleus, the medial part of which is formed by the globus pallidus. Further intricate connections (Ranson and Rawson, 1942) exist with the grey matter in the brain stem, including the subthalmic body, the red nucleus, the substantia nigra and in addition, the reticular formation which is being more and more recognised as having an essential role in motor function.

In a wider sense, the cerebellar nuclei, together with the inferior olive, the pontine grey matter and the vestibular nuclei, may also be considered in relation to those structures concerned with voluntary movements. The activity of all these complex structures is eventually funnelled down to the anterior horn motor neurones by direct and indirect motor spinal pathways.

Clinico-pathology. The two main symptoms of Parkinsonism are rigidity of the cog-wheel type and a fine static tremor which is more marked in the distal part of the extremities.

Most workers agree that post-encephalitic parkinsonism is characterised pathologically by cellular damage maximal in the substantia nigra. Some disagreement however still exists as to the essential change in idiopathic Parkinsonism. The caudate nucleus and the globuspallidus are considered to show the most constant lesion by some (Denny-Brown, 1946) while the substantia nigra shown in this group as well as in the post-encephalitic group the most severe damage according to other observers (Greenfield and Bosanquet, 1953; Davison, 1942). In atherosclerotic Parkinsonism, there are small perivascular lesions scattered throughout the striatum and globus pallidus perhaps more extensively involving the latter. It seems important to recognise that even in patients with unilateral signs of Parkinsonism, there may be bilateral pathological lesions. Davison concludes that disease of globus pallidus and reticular portion of the substantia nigra results in rigidity and that lesions of the compact zone of the substantia nigra result in the characteristic tremor of paralysis agitans.

Spisgel and Wycis (1953) consider that static tremor is brought about by release of the reticular substance from nigral inhibitory influence due to degeneration of the substantia nigra. The globus pallidus then exerts an uncontrolled facilitatory influence on the reticular substance producing tremor. Destruction of the globus pallidus, therefore, would be associated with reduction or abolition facilitatory effect and with this of the tremor. Our injection treatment is based upon this hypothesis.

Treatment. Various surgical procedures have been tried from time to time. Most of them are still in experimental stage. In the order of various levels of the extrapyramidal tracts upon which they are affected are :—

1. Cortical excision (Bucy, 1942)
2. Sub-cortical operation.
3. Direct approach—
   i) Extirpation of head of caudate nucleus (Meyers, 1942)
   ii) Coagulation of ansa lenticularis through second temporal convolution.

   (*b*) Stereotaxic approach—(Spisgel and Wycis, 1952) The treatment under discussion is done by this method,

4. Choroidal artery occlusion (Cooper, 1955)

5. Pedunculectomy (Walker, 1949)

6. Cordotomy (Putnam, 1933 ; Erbin, 1949 ; Oliver 1944)

Globus Pallidus injection. Irving S. Cooper injected globus pallidus in hyperkinetic disorders to select patients who might be aided by occlusion of the anterior choroidal artery.

More recently Narabayashi and Okuma (1953) reported on 10 patients afflicted with Parkinsonism who showed a dramatic change in tremor and rigidity but no weakness or hypotonia as a result of injection under stereotaxic control of 1 c. c. of a procaine oil mixture into the globus pallidus. Some recurrence of tremor was noted after 2–3 months necessitating a repetition of the injection.

Seeing the temporary improvement of tremors with procaine in oil injection we decided to inject 80% alcohol instead for permanent relief.

The site of globus pallidus as described by Cooper i. e. 1 5 cm. behind the tragus and 1 cm. above the helix of the ear was found to be too posterior in cadaver. Hence the Director of Upgraded Department of Anatomy, Stanley Medical College was requested to help in localising the globus pallidus. After taking serial sections it was seen to correspond to a spot 1 c.m. in front of the tragus and 1 cm. above the helix of the ear. The patient was injected at this spot and the tremors stopped. It is too early to be dogmatic about the result but the results are very encouraging.

Report of a Case.

Name R. Sex Male. Age 42 yrs. Occupation – Teacher.

Admitted on 15—11—55 Readmitted on 2–5–56 Discharged on 19–12–56.

Complaint and duration. Involuntary shaking of the head and tremors of both hands–difficulty in speech – 10 years.

Family history – nil particular.

Previous illness – The patient had fever with dysentery in 1934. He was unconscious for 2 days. Since then patient had recurrent attacks of fever and dysentery.

History of present illness. The patient noticed difficulty in writing and difficulty in speech 10 years ago. Gradually tremors of the hands and shaking of the head set in and increased in intensity. He was not able to write legibly.

The patient sought admission into the Stanley Hospital about 2 years ago and was given some tablets and tonics. He continued the treatment but the symptoms were not controlled. Hence he sought admission again in November 1955.

General Condition. Patient an adult aged about 40 years fairly well-nourished, not anaemic, not jaundiced, tongue moist and clean. Teeth clean. Liver enlarged 2 finger breadth below the costal margin. Spleen not palpable.

Central nervous system.

Psychical functions – Intelligence good. Memory fair. Sleep not disturbed. No mask–like facies.

Speech and articulation. Speech monotonous.

Cranial nerves. Normal.

Motor function:

1. *Power* fair in all the four extremities.

2. *Co-ordination* normal.
3. *Tonus* – ' Cog-wheel ' spasticity in all the four limbs.
4. *Wasting* – not present.
5. *Involuntary movements* – Tremors present in both hands and tibulation present. Tremors present both at rest and during action and disappear during sleep.

Gait. Slightly unsteady. Not festinant.

Sensory functions. Normal.

Reflex functions – Tendon and cutaneous reflexes present. Not exaggerated. Plantar flexor on both sides.

Visceral reflexes normal.

Spine and cranium – nil abnormal.

Trophic changes nôt present. Other systems nil abnormal.

Investigations. Urine – albumin nil, sugar nil, no casts seen.

Blood–R.B.C. 5·1 mil / cmm.
W.B.C. 9800 / cmm.
Hb. 95%
V.D.R.L. – negative

Liver function tests. within normal limits.

Ophthalmic examination. Pupils reacting to light. Funfus normal both sides.

C. S. F. – clear – not under tension. 3 cells/cmm. all lymphocytes.

Protein – 30 mgm%
Globulin – nil
Chloride 725 mgm%
Sugar –50 mgm%

X-Ray skull – nil abnormal.

Diagnosis. With the history of fever and unconsciousness about 20 years ago and gradual onset of tremors of hands and shaking of the head, "cog-wheel" rigidity, plantar flexor, reflex a diagnosis of post-encephalitic parkinsonism was made.

Enlargement of the liver and the tremors suggested Hepatolenticular degeneration but the absence of any familial history and the normal liver functions ruled it out. The other causes of tremor like toxic, functional and other organic causes were ruled out.

Technique. 22–11–55 Globus Pallidus injection on the left side.

Premedication – Pethidine 100 mgm I. M.

Under local Navocaine 3% a vertical incision 1" long is made in front of the tragus and above the helix of left ear and muscles retracted. A small burr hole is made 1 c. m. in front of the tragus and 1 c.m. above the helix of the ear. A graduated small calibre ventricular needle is inserted for a distance of 4·5 c m. through a small canula placed over the burr hole and 7 mm. of 2% novocaine and later 2 c.c of Procaine in oil are injected.

Results. Immediately after the injection tremors of the right hand stopped, rigidity also diminished in the right upper and lower limbs. Power of right side of the body slightly diminished. After 4 days the tremors gradually returned in the right hand. Power has improved.

6–12–55 – *Globus pallidus injection* on the right side. By a similar procedure as on the left side, the right globus pallidus was injected first with 1 c. c. of 2% novocaine and then 7 mms. of 80% alcohol.

Results. Tremors completely stopped in the left hand. Power was impaired on the left side but gradually returned within a week. Left side of the body was cold for a week but this again returned to normal within 10 days. Plantar was extensor on the left side. Shaking of the head diminished to a great extent.

19–12–55 – The patient was discharged at request as he had to join the School, where he was working as a teacher and

was asked to come again during the summer vacation for alcohol injection on the left side.

2–5–56 – Patient was re-admitted.

8–5–56 – Alcohol injection into left globus pallidus by a similar procedure, the left global pallidus was injected with 1 c. c. of 80% alcohol.

Results. The immediate effect was not satisfactory but after four days the tremors in the right hand has completely stopped. The patient was able to write more legibly. Power on the right side was not impaired.

Post-operative management. Half hourly pulse/respiration chart put up. Penicillin 5 lakhs I.M. b d. 50% glucose 50 c. c. b.d. Conc. Mag. Sulph oz. iv rectally. The post-operative period was uneventful.

Follow-up. The patient has written two letters after discharge stating that he is free from the tremors and that his speech has considerably improved.

For the last two years, we have injected 43 times in 27 patients. The immediate results in all cases are very gratifying. The tremor and rigidity disappear. In 50% of the cases, the symptoms reappear, but to a mild degree and a second injection has become necessary. But, most of them do not come for a second injection, as the relief of spasm enable them to get on with their work. The patient 'R' mentioned in the article has been alright and working as a teacher even now. Many of them do not reply and we are unable to have a good follow up. It may be mentioned here that the injection of Alcohol into the globus pallidum was done for the first time in the Stanley Neurological clinic and the procedure was elaborated with the help of the Upgraded Department of Anatomy.

References :

1. Cooper – Year book of Neuro-Surgery 1954.
2. Feindel – British Surgical Progress 1954.
3. Savill – System of Medicine.

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*RECENT TRENDS IN THE USE OF CAESAREAN SECTION OPERATION

by

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In this era of better obstetrics with lowered maternal and foetal mortality, there is an upward rise in the percentage of the Caesarean Sections The present day low mortality of C. sections as performed by experienced obstetrics and gynaecological surgeons, on properly selected cases, for justifiable indications, in suitable surroundings has given the erroneous idea of the safety and simplicity of the operation, resulting in a tendency to regard it as the simplest, safest and easiest way to deal with almost any obstetric difficulty. The indications for abdominal delivery has expanded very widely in recent years, more so, after world war No. II when many additional factors have contributed to the safety of surgical operations. It is now possible to employ this major surgery in very many conditions and situations in which it would not have been possible previously due to :—

1. Newer and pleasenter and safer methods of anaesthesia and better trained anaesthetist doctors are now available.

2. Better knowledge of fluid balance and bodily electrolytes and of ways and means of maintaining fluid balance and prevention of dehydration, acidosis and exhaustion.

3. Better understanding of the causation of shock in general and of shock particularly in obstetrics, and of preventing the same.

4. The benefits derived from blood transfusion in cases of haemorrhage and shock.

5. The benefits of new anti-biotics in preventing and combating infections.

6. Newer drugs for raising and maintaining the blood pressure.

These are some of the factors that have revolutionalised the entire outlook of all surgeons. Patient's morale also is now-a-days on a boosted up level and this boosted morale of both doctors and patients has resulted in a number of C. operations, the justification for same being questionable in quite a number.

C. Section is one of the easiest of abdominal operations. It needs no special surgical skill or dexterity or special or complicated instruments or appliances. But that should not be an excuse for doing it when vaginal delivery is possible, without any harm to both mother and babe.

The decision to perform a C. Section is an important one. What is the purpose in delivering the woman per abdomen instead of via naturalis ? In most instances the sole purpose is to ensure a healthy undamaged baby and an untraumatised mother by preventing a difficult and prolonged vaginal delivery and in many instances an instrumental delivery with the possibility of traumatising and damaging the mother and jeopardising the life of the baby. The High Forceps delivery is not even heard of now. In another class of cases the purpose in delivering the woman abdominally is to hasten delivery and thus prevent maternal mortality and morbidity–the baby being not seriously

" Reprinted from the Coimbatore District Medical Association Annual Number (1957).

considered–as is being done in central placenta previa, accidental Antepartum bleeding, and fulminating cases of Eclampsia not improved by conservative line of treatment. In antepartum haemorrhages, the woman is sure to bleed if allowed to progress vaginally in labour–especially in low situations of the placenta

When performed in the interest of the baby, it should not only be mature sufficiently, atleast 36 weeks or more, and without gross defects or deformities, but with sufficient stamina to grow into a healthy infant.

To achieve this, it is very important to decide on operation and get it done before the patient and foetus are exhausted and infected, preferably or very soon after rupture of membranes. In cases fixed up for elective section beforehand, we usually wait for the woman to go into labour, so that we do not err on the side of prematurity–and we get a uterus in action.

Intrapartum infection is the cause of much morbidity even mortality in the mother. Intrapartum infection is also the cause of intrauterine or neonatal death of the infant. Even if the mother comes through the immediate post-operative period, after a stormy convalescence following the Section, she remains a chronic invalid due to adhesions and weak scar and incisional hernia and chronic pelvic inflamation, resulting in much chronic ill-health. As such there is no excuse to perform a Section after repeated attempts and failure at aided and instrumental or manipulative vaginal delivery, when the mother is traumatised, infected and exhausted, and the baby too is already shocked and asphyxiated. Craniotomy will be a justifiable procedure. There is also no justification to do a section if the purpose of opening up her abdomen is to sterilize her by bilateral Salpingeetomy. Sterilization alone can be performed in early puerperium under local infiltration anaesthesia–without having to open up her uterus.

A woman who has had a C. Section for a baby, most probably for her first born, has a safe future, if her subsequent delivery or deliveries also are by Section. But there are cases where the indication for which the previous C. Section was done, may not be present for a subsequent delivery and in such cases vaginal delivery may be allowed to progress under very careful supervision. I know of several cases where the women have had several vaginal deliveries following a first Caesarian Section. A primie had a big baby-post mature and the presentation was " brow ". She was in labour for 24 hours and the greatest diameter was still above the brim. C. Section was done 11 Lb. live baby was extracted. She has had six vaginal normal deliveries following that. Another case had an A. P. Haemorrhage without any pain and a C. Section was done three years ago. Last year she had a low forceps delivery in the Hospital. So the dictum " Once a C. S., always a Caesarian " need not be followed literally in every case, except those done for contracted pelvis, where it is a fixed indication in every delivery.

Three consecutive sections are freely allowed on the same woman. But many a case asks for sterilisation when they have had two children by two sections, especially those who fortunately possess a boy and a girl. Tubal ligation may be performed after the second C. Section if requested and should be suggested and carried out after the 3rd. But there can be exceptions to this rule also.

In cases where there is incipient infection, antibacterial therapy and blood transfusion have made it possible to undertake the operation with good results. There is now a marked increase in the use of abdominal delivery in placenta previa cases with very good and encouraging results, So much so, C. Section is the

standard line of treatment in every case of Central Placenta Previa. There is surely an upward trend in the number of operation in elderly primaparae, especially if there is associated malpresentation or even slight disproportion. Breech presentation in an elderly primi or in one who has no living child is a justifiable procedure. Preeclampsia, accidental haemorrhage and elderly primaparity present irregular but flexible trends.

In cardiac cases there is a definite fall in the number of Sections. A pregnant woman with cardiac disease who could reach term without any cardiac failure or embarassment can also stand the strain of the first stage of labour and the present trend is to deliver her by forceps under suitable anaesthesia, when conditions are satisfactory for same.

A new and useful indication for section is in cases of prolapse of the umbilical cord, in the early stages of labour, when the baby's condition is quite good. All methods of vaginal delivery are sure to be hazardous to the baby By acting on the simple principle of " Immediate delivery " very many babies are saved, which would not have been possible if allowed to progress vaginally.

Critics may say that obstetrics is now moving away from vaginal obstetric delivery towards abdominal operative-surgery. Under ideal conditions, abdominal delivery is not more hazardous than difficult vaginal operations and is certainly less tramautising. The risk to the baby is also much decreased. Against this trend, we may argue that it will lead to unnecessary sections done when vaginal route delivery could have been possible. Since uncomplicated vaginal deliveries are always safer than abdominal delivery, these unnecessary sections done for convenience, or because of ignorance or poor judgement or for want of patience on the part of the obstetrician or for the sake of profit, cannot be justified.

May I therefore enumerate the present day indications for C. Section once again : (1) Contracted Pelvis, Pelvic deformity, tumours causing obstruction to delivery per vaginium :

These are very obvious cases and need no further comment and require no further consultation or judgement as there is no other way of delivering the woman safely, especially for saving the life of the baby.

2. Cephalo pelvic Disproportion : Cases where the head remains above the brim even after a genuine test of labour are definitely for Section. I am sure that there would be less number of Sections and just as many live babies if more parturient women were given a fair test of labour in a hospital. The Cephalo pelvic relationship has to be established functionally when the uterus and abdominal musculature are in action and not merely anatomically or radiologically. The size and position and degree of flexion of the foetal head, the nature of uterine action and pelvic capacity are to be taken into account together and a chance given for moulding of the foetal head. The foetal skull bones overlap one another during the process of decent through the bony pelvis and there is a great dimunition in the overall size of the foetal head during labour.

A IV para in labour was admitted in a nursing home with slight pains. I had seen her that morning and had satisfied myself that everything was alright. The head had gone completely through. In the nursing home, the mid-wife in attendance told the doctor there that she could not feel the foetal head, nor could she get the foetal heart sounds. So the doctor sent the patient for an X-Ray for the foetal lie and presentation. A wet film was sent to me with very marked overlapping of the foetal skull bones, called Spalding's sign a sure sign of foetal death. I was rather uneasy at seeing it, but I sent

word that the overlaping may be due to compression during labour there was nothing to do for her then and advised them to leave her alone. Early next morning the woman's husband came and informed me that a healthy 9 Lb. baby boy was born after midnight and that there was no trouble whatsoever. That just shows the degree of moulding the head undergoes and that factor can be given a chance only if she is allowed a fair trial of labour.

3. Another important group of cases for C. Section are :—

Uterine intertia, cervical dystocia, prolonged tardy desultory labour, maternal and foetal distress :

Here there is no Cephalo pelvic disproportion per se, but they are all cases of tardy labour. These are mainly what we call foetal indications for Section. Vaginal delivery is possible, but the labour progresses very slowly with weak pains. This type is usually met with among elderly primiparae. Labour should not be an endurance test between mother, baby and doctor. The baby, on account of the prolonged labour may be asphyxiated or infected or both and its chances of survival may be much reduced. The doctor also becomes overanxious about the baby and may resort to early Section in some cases. Interest in the baby has increased in recent years. No doubt there is an exaggerated idea of the value of the infant's life in these present days of family planning, when pregnancies are spaced, regulated and relatively rare, especially among the higher strata of Society and as such greater need for preserving the baby's life. On the other hand there are still women of the poor classes who do not plan their family, even when their several labours have been difficult or even dangerous to their own lives. In highly civilised and cultured Societies, even in India, the size of the family as a rule is planned and often limited to two or at the most to three children. So concern for the individual child naturally becomes proportionately greater. Parents are becomming less willing to accept as unavoidable the loss of a first baby from birth injury and are also getting more aware of the risk of permanent cerebral damage from asphyxia or cranial injury in a child which survives after a difficult vaginal delivery. And therefore the request for Caesarean Section from the side of the patient also may be very pressing. Consideration must be given to the age of the mother, period of married life without any conception, chances of further fertility and so on.

4. Elderly primaparity alone need not be an absolute indication for Section. Greenhill has stated that primi gravidarity in advanced years should be an important factor for C. Section, if also associated with any other factor like breech presentation, big baby, or slight disproportion. In very old primiparae, more importance should always be attached to the baby than in younger women, particularly if she has been sterile for many years or has had several abortions etc.

5. C. Section is justified in another group of cases, viz. those who have had previous difficult vaginal deliveries and have had injuries like perineal and cervical tears, R. V. F and V V. F. and prolapse of uterus etc. for which plastic repair operations have been done. It is very essential to save her parts from injury again and in all cases where a single episiotomy alone may not be sufficient during an ensuing labour, it is better to resort to a C. Section. All such post-operative pregnant cases should be admitted to hospital for delivery. Many a case of post prolapse operation cases have delivered normally but it is better to keep them under observation in a Hospital.

I think I must say a few words about trial labour at this juncture.

A trial labour may be defined as one that is conducted under close observation

in a Hospital or well equipped Nursing Home and the labour at any time may be completed either by forceps or by C. Section if progress stops, or if at any time it is considered that operative delivery is less hazardous to mother or child than continued vaginal labour. A trial of labour is meant to find out what "a patient can accomplish, not what she can endure" So, special care must be taken to maintain patient's general condition and see that it remains good throughout and to see that she takes enough food and fluids and has enough rest. Sedatives must be given before she becomes exhausted, restless and anxious and sedation should be increased at night to ensure sleep. Rectal or vaginal examination should be restricted and should be made only when it becomes necessary to find out the progress, the situation where the head is, the degree of moulding, the actual presentation the dilatation and consistency of the cervix, whether membranes are present or not etc. These points must be gathered from one P. V. examination instead of resorting to repeated introduction of the finger. The decision how and when to bring a trial labour to a close must depend not only on the progress made, but also on the patient's age, parity, reproductive potentiality etc.

Early C. Section is justifiable in an elderly primi than in a younger woman.

A rising pulse rate, vomitting and distension of the Colon are the usual signs of maternal exhaustion. It is important to operate before her condition deteriorates A trial labour should never be allowed to progress till the mother is exhausted.

Foetal distress is equally hazardous and foetal condition has to be carefully watched. Evidence of foetal distress. such as irregular rhythm of the foetal heart rate or marked slowing of Foetal Heart sounds with passage of meconium are danger signals. C. Section may give the child a better chance of survival than continuing the vaginal labour. Intrauterine infection of the foetus may occur even though mother may not show any sign of infection. Penicillin should therefore be given prophylactically in all cases of trial labour, especially if associated with early rupture of membranes.

6. *Place of C Section in Antepartum Haemorrhages,* (a) In placentaprevia there has been a definite increases in the number of sections, especially in the central type and the overall maternal mortality is much reduced This has now been broadened to include cases in which there is active bleeding which cannot be controlled by simple vaginal procedures. Here, the life of the mother alone is considered, irrespective of the duration of pregnancy, nor state of the baby. In cases of profuse or/and persistent bleeding, there should be no choices. Abdominal delivery with replacement of blood must be performed with the least possible delay. Many a maternal life is easily saved by following this rule.

N. B: In cases of bleeding in Antenatal cases, if called to the patient's house, please do not rush to make a vaginal examination then and there. Give her a morphia injection, apply a good perineal pad and rush her to the nearest hospital, where she will be grouped, supportive treatment given and prepared for immediate vaginal or abdominal delivery as the case may need. The hospital staff is always ready to go ahead with the case whereas in the patient's house you are not prepared for it, and you have no blood to replace what she has already lost and will lose further from your vaginal examination. So it is wrong to make a vaginal examination in antepartum haemorrhages unless you are prepared and competent enough to go ahead.

Plugging is not resorted to in these days. For plugging to be effective, you

have to do it very thoroughly, by bringing the patient to the edge of the bed and applying a posterior speculum and then tightly plugging each fornix in succession for which yards and yards of sterile gauze will be required-instead I have seen some cases coming into the hospital after being plugged outside with just a wick a gauze inside the vagina which serves no useful purpose, but only infects the patient.

(b) Caesarean Section in cases of premature separation of a normally situated placenta :

What are called cases of accidental antepartum haemorrhages or abruptive placenta :—

Conservative management of abruptio placenta is nowadays considered routine. Rupture of membranes, small doses of pitocin, routine treatment of shock and toxaemia by I V. fluids and blood etc.

C. Section is done only in a few selected cases in the interest of the baby in partial separation with very mild haemorrhage ; in the presence of shock and for persistent vaginal bleeding when delivery is not expected to be imminent, when a completely damaged uterus is suspected or in the presence of a normal, good sized living foetus when vaginal delivery is expected to be completed only after a length of time. Of such cases in addition to the Caesarian, a few will require hysterectomy as well.

In several cases of bleeding, if there is no improvement, even after rupture of membranes and pitocin injections, it is better to do a Section and if uterine musculature is unhealthy Caesarian hysterectomy is performed. But, as I said, at the beginning, simple vaginal procedure of rupture of membranes and pitocin injections may suffice in most cases, as the baby is premature and already dead, and there is no gain in doing a section if labour progresses and bleeding is arrested by vaginal methods.

7. *The place of C. Section in breech presentation :* C. Section can play an important role in lowering foetal loss in breech presentation. The danger to the foetus in this group in mothers with small pelvic measurements is nowadays, well recognised, particularly in mild degrees of contraction which are not discovered until later in labour. There is no accurate method for estimating the size and weight of an unborn baby, but we can roughly classify the foetus as large medium size, or small by means of palpation.

Another factor which also should be given due consideration is the mother's age and parity. Primipara over 30 years with breech is a justifiable case for Section and should be immediately delivered by Section. If in addition, there is prolapse of the cord do not waste any more time. To quote from the British Obstetric Practice 1955 :

(*a*) There should be no vaginal breech delivery whatever the size of the baby, through an abnormal or contracted pelvis.

(*b*) There should be no vaginal breech delivery of an infant estimated to weigh over 7 lbs. through a border line pelvis.

(*c*) There should be no vaginal breech delivery through a normal pelvis if the baby is estimated to weigh over 9 lbs.

8. *C. Section in Heart Disease*: In the absence of obstetric indications, Heart disease is not an indication for Section. These heart cases should be properly and very throughly scrutinised in early pregnancy and combined medical and obstetric consulation should decide if the pregnancy should be allowed to continue or not.

9. *The place of C. Section in Diabetes :* " Under modern conditions the Diabetic pregnant woman can be made to withstand both surgery and anaesthesia. The lowest foetal loss is in association with

abdominal delivery and in the interests of the baby, general anaesthesia is best avoided. C. Section should be the choice unless the obstetric history, the size of the baby and the state of the cervix make an easy vaginal delivery almost a certainty. C Section should be used in all cases in whom a large baby is suspected (diabetic babies are usually large) and in whom the supervention of toxaemia makes immediate delivery highly desirable. The history of previous foetal loss should be given due importance. Everything should be in readiness to counteract dangers such as anoxia, lethargy and hypoglycaemia which are the usual causes of foetal loss in diabetic cases.

10. *Toxaemia and C. Section*: In fulminating pre-eclampsia, if medical treatment shows no response, all will agree that the Pregnancy should be ended with reasonable haste, for once fits occur, the out-look for both mother and child is gravely altered. Labour may be induced with simple rupture of membranes. But in a selected few cases, for example an elderly primi with a live baby at or very near term and in whom the cervix is tightly closed may be quickly delivered by Section.

In eclampsia with the excellence of modern conservative treatment and nursing, the place for Section is very small indeed. In our H. Q. Hospital, we have been rather conservative in the management of eclampsia and toxaemia and we have seldom resorted to C. Section. Maternal mortality in eclampsia is almost nil though foetal mortality is rather high. But we cannot expect anything better because most of the cases are premature and the babies of toxaemic mothers are very prone to be weak.

The adverse side of Caesarean Section: What is the adverse side of C. Section? Abdominal delivery, being a major surgical undertaking cannot be so safe as an uncomplicated normal vaginal delivery. No one will disagree with this statement. But in most of the circumstances where C. Section is done, there is hardly any meaning in comparing the two modes of delivery. Let us consider what would have been the maternal loss if all the women at present delivered by Section were delivered by one or other method per vaginum? The figure will be very very high indeed, especially in the disproportion and placenta previa groups. The foetal loss also would be equally great.

But at the same time, C. Section is a major surgical procedure and will be attended by the risks associated with all surgical procedures under anaesthesia, and also by those features peculiar to obstetrics, viz. uterine atony, haemorrhage, infection etc.

More than 50% of the deaths after C. Section occurred within the first 72 hours of operation, which clearly indicate the still persisting danger of shock, haemorrhage and fulminating infection, which still form the three important causes of maternal mortality and morbidity.

Some degree of distension is usually met with in the first 2–3 days post, operatively-more so in cases done late in labour. Worst degrees of distension may be associated with some dehiscence of the parietal peritoneal sutures. The ileus usually yields to usual measures. But some of these patients will develop an incisional hernia which would need repair later.

Peritoneal adhesions are rarely seen after the lower segment operation. They may cause intestinal obstruction even years later, or they may cause occlusion of the tubes and adversely affect future fertility.

Anaesthesia: The operator who has complete command of local anaesthesia

can confer on the mother and child a degree of safety obtainable by no other method; especially in patients with toxaemia, diabetes, anaemia, placenta previa and in cases where the foetus is showing signs of distress, local anaesthesia is the safest. Unlike other cases for operation, here we have to deal with two individuals-the mother and her baby in utero. Slightest degree of anoxia in the mother is bound to show itself in the baby too but on a larger scale. The anaesthesia chosen should suit both the individuals in question .The patient who is already shocked or/and exsanguined need special attention with regard to anaesthesia. The number of deaths still due to shock, or shock and haemorrhage is high and in this heavy toll anaesthesia, particularly inhalation anaesthasia does play a part. Patients with toxaemia are specially prone to anaesthetic shock. Hence the value of local anaesthesia in such cases.

The patient may be made more comfortable and her mind set at rest by a I. V. pentothol drip or a drip containing hyoscine and pethidine. Oxygen should be available in readiness.

Of inhalation anaesthesia gas and oxygen will be the safest. Most of these patients will have a distended stomach. The danger of aspiration vomitus and aspiration broncho-pneumonia cannot be over-emphasised. Food, both solid and liquid, should be withheld from parturients who are likely to require any form of operative delivery under anaesthesia. Extra fluid can be given intravenously. The stomach contents may be aspirated before operation, especially if she has taken fluids orally just prior to the operation and she has a tendency to vomit. The operating table should be adjustable and may be quickly titled into Trendelenburg position. Suction apparatus should be immediately available for aspirating stomach and a clear airway maintained throughout. Intravenous ergometrine must be given, when the presenting part is being delivered. Unless all these things can be provided for, it is better to do the operation under local infiltration anaesthesia Every case should be grouped and suitable blood should be in readiness.

The type of operation : Classical or lower Segment C. Section? From the year 1926, the classical section has been gradually replaced by the lower segment operation. In a survey of 349 cases of Section done on women who had been in labour six or more hours, the following results were obtained: quoting from British Practice of Obstetrics, 1955.

In 184 Lower segment the maternal mortality was 2·7%.

In 165 classical, it was 5·4%. (is exactly twice as high.) and in the same survey it was found that in 850 classical C. Sections done before the onset of labour, they had a mortality which exactly equalled that of lower segment section in a group of 848 patients who had been in labour between 6 and 24 hours.

The maternal mortality is gravely affected by the duration of labour. It is disappointingly high in patients who have been more than 24 hours in labour and in whom classical section was done. So lower segment C. Section has now come to stay and classical section is almost dead.

I must say a word about Caesarian Hysterectomy before I finish. This operation, viz. that of removing the uterus at the time of the C. Section is sometimes imperative. (a) Benign pelvic tumours such as fibroids complicating pregnancy or labour will certainly require this procedure. But such compelling reasons for hysterectomy at the time of Section are very rare indeed. (b) Uncontrollable haemorrhage during Section may be a real

problem and is certainly an absolute indication. But if the ergometrine technique is employed hysterectomy will very seldom be required for atonic haemorrhage. In abruptio placentae, ie. accidental antepartum haemorrhage, there may be discolouration of uterus or even wide spread estravacation of blood into the broad ligament and the extra peritoneal tissues. But even in these extreme cases the uterus seldom fails to contract and hysterectomy need not be resorted to in each and every case.

(c) *Placenta accreta*: If this rare condition is met with in women during C. Section, hysterectomy is the wisest step. But in a primigravida, it may be desirable to leave the uterus and an operator may have the courage to plug the uterus and pass the end of the gauze through the cervix and then close up the uterus. The gauze is removed after eight hours and the rest is left to nature. Cases have been reported where the woman has recovered and later borne children.

(*d*) *Previous Sections :* If the previous C. Sections have been of the classical type, very many go in for adhesions involving the peritoneum uterus, bowel and omentum. The operator may feel compelled to separate these and then find himself confronted with a raw and oozing uterine surface. In such cases hysterectomy is advisable and offers the woman a safer future than simple sterilization.

In the management of the suspect and infected cases, the standard practice by British Obstetricians is still the intraperitoneal lower segment section reinforced by all the measures which we now have at our disposal, viz. good and suitable anaesthesia, blood transfusion, antibacterial therapy and good post operative management. Few will fall for the hysterectomy attitude. The mortality of those cases operated on late in labour is still high, but such an incidence of late operations is not a credit to the obstetric practice of modern times.

Ruptured Caesarean scar : The risk of rupture of a Caesarean scar in a subsequent pergnancy or labour is much more evident in Corporeal i. e. 'classical' scars than in lower segment operations. This risk of ruptured scar is getting much less now because most C. Sections nowadays are of the lower segment type. But lower segment scars also can and do rupture during subsequent pregnancy and labour and therefore such cases should all be in hospital in competent hands. Some cases may deliver vaginally, viz. those for whom the indications for the original section are now absent. The presenting part should be well engaged and the cervix well effaced for any such case to be given a trial of labour. But in some institutions there is no compromise. Once a Caesarian is always a Caesarian, but as I said earlier, these need not be taken literally in every case.

The ideal normal labour may be defind as one in which the vertex presents and which is completed spontaneously in less than 24 hours without injury or undue discomfort to the mother and baby. This ideal, the aim of every obstetrician, can never be expected in each and every case. Abnormal conditions will be present, but the aim of good obstetrics is to reduce the difficulties and dangers by a better understanding of the various causes that contribute to such abnormal states. The importance of antenatal supervision cannot be overstressed and very many women are being saved from the hazards of prolonged and difficult labour, due to a preparedness on the part of the obstetrician to intervene at the opportune time and deliver her either abdominally or by instrumental vaginal delivery. Surprises and dangerous situations at and during labour are reduced to a minimum by means of antenatal supervision, with the result that maternal and foetal mortality and morbidity are also reduced to a minimum. That is the aim of good obstetrics.

ACUTE ABDOMINAL CATASTROPHIES

by

Dr. L. SYLVESTER, M.B., B.S., *District Medical Officer. Ramnad.*

THIS condition must be differentiated from acute abdominal conditions. It is common to find by a Surgeon or Physician in a hospital, that 'medical' cases are admitted in the 'surgical side' and vice versa, and complaints are made by them to transfer such cases. Even though they are admitted by the doctors in the out patient department or in the casualty section, it is important to differentiate one from the other. I am not going to deal with all the acute abdominal conditions. I will confine myself only to the acute abdominal catastrophies, i.e , the condition requiring surgical intervention immediately. Therefore for purpose of clinical diagnosis, acute abdominal conditions can be classified into 'Medical' and 'Surgical' cases. Medical conditions are: e.g. acute gastritis, acute hepatitis, acute cholecystitis, acute panerenatitis, acute splenitis, acute enteritis, acute cystitis acute pyelitis, acute salpingitis, acute colic etc. Now what are the surgical conditions constituting catastrophies which are classified as:—

1. Injuries e.g. Injury to stomach with or without rupture, Ruptures of liver, spleen, intestines, bladder or kidney or pregnant uterus.

Many doctors in the casualty section in any Govt. Hospital would have met with such cases in plenty. A kick on the abdomen might cause many intestinal injuries. A boy was brought to the hospital by the parents stating that the boy was unconscious. On examination there was no pulse or respiration. The boy was found dead. On enquiry it was stated that he was kicked in the abdomen by another man and the boy went home with pain and after half an hour he collapsed. In such cases history helps a long way in the diagnosis. A post mortem was done at the request of the police. There was no external or internal injuries. There was a red patch on the gastric mucosa. Evidently the boy died of shock. You would have seen many accidental cases due to cart accident, railway accident or car accidents, stab injuries causing many internal injuries leading to internal haemorrhages, resulting in shock. So you all know the condition of shock has to be treated first.

2. Next we pass on to another condition due to inflammatory or pathological condition constituting abdominal catastrophies e.g. acute dilatation of the stomach, gastric or duodenal perferation, acute appendicities and acute gangrenous appendicities with or without perferation, intestinal obstruction, due to valveless or tumours or strangulated hernia, ruptured ectopic gestation.

3. Lastly there is one condition due to new growth i.e., malignant condition. This condition constitutes acute catastrophy on the top of a chronic existing malignant condition. Practically this condition is met with and diagnosed after a laparotomy.

Now we know what is meant by catastrophy and I have classified all such surgical conditions.

What are the signs and symptoms of acute abdominal catastrophy? They are as follows:—History of sudden pain and collapse, history is more important to

Lecture delivered at the Ramnad Branch of I. M. A. on 12—5—57.

find out the exact nature of the internal lesion. Most of the cases in the villages are brought at a later stage. In such cases, history gives a clue to the nature of the internal lesion. On examination a rapid pulse is of value in the diagnosis. This shows the nature of infection or toxaemia, the rising pulse rate shows the degree of toxaemia Temperature indicates the nature of infection. Pulse and temperature are the two indicators showing the degree of internal inflammation and toxaemia. Rigidity of abdomen on palpation is a phenomenon which is an important factor which helps the exact position of lesion in the early stages A "board like rigidity with tenderness" is the phrase used in many surgical text books. The abdominal muscles contract and reflectly protects the internal parts and help to protect the region, thus restricts the spread of the lesion. Since the patient has got pain, nature takes the patient to a place of rest. Vomitting is a reflex process by which the nature helps to eliminate the natrials from the system, thus protecting the organs from further catastrophy. Absolute constipation is a phenomenon which arrests all the movements of the intestine. These phenomena try to localise all lesion to that particular area where the lesion has occurred. The nature has already started treating the patient even from the onset of the catastrophy. Therefore we have to follow and help nature's phenomena in the treatment of such cases. You may not find all the typical cases in a single individual. A minor degree of catastrophy might resemble any one of the medical conditions I mentioned earlier. Therefore a rising pulse rate with history of other signs will clinch the diagnosis of acute abdominal catastrophy.

Treatment lies in the line of nature's treatment. Treatment should be started only after the diagnosis is made by the Surgeon who is going to tackle the case. Therefore if a junior person or anybody who is not prepared to tackle the case surgically, he must hand over to a surgeon for same. Nature has caused collapse with a view to send him for rest in bed. Therefore put the patient in Fowlers cot, put half hourly pulse and temperature chart. Aspirate the stomach and give morphia after the diagnosis is made by the surgeon. For improving pulse and eliminating toxaemia, glucose saline and antibiotics by the needle can be given by drip method. When the condition is fit, operation is the choice within 24 to 48 hours and the results are excellent.

Laparotomy can be done to confirm any cases which are doubtful to the Surgeon, because many surgeons have failed in the diagnosis due to the nature of the complicated cases or delay on the part of the patient in seeking surgical aid and also due to certain annamalous condition of the diseases. A boy of 10 years was diagnosed as appendicitis and laparotomy was done. It was found to be a case of acute gastric purforation. The patient made a remarkable recovery after operation. An old man of 60 years, was diagnosed as cancer stomach. Laparotomy revealed that it was a case of appendicitis. After operation the patient was found to be hale and healthy. A young woman was examined by a senior lady doctor and found a P. V. A pulsatile tender swelling in the right femix and diagnosed as ectopic gestation. On examination, there was an unusual swelling noticed externally on the right side of lower abdomen. On Laparotomy, the tubes were found to be normal. An enlarged mesenteric gland, cascating and found discharging pus into peritoneal cavity. The gland was scopped out and peritoneal cavity cleared of the pus. The patient was given treatment for T. B. abdomen and a course of ultra violet exposure given and was cured. A young girl was giving history of slight pain in the abdomen and later had temperature, was diagnosed and treated by a practitioner for T. B abdomen. Laparotomy revealed it to be a case of gangrenous

appendicitis. A young man was having severe renal colic in right side. Plain X-ray showed "no stone". Excretory pylography revealed "no excretion." A faint dark shadow was seen in the kidney region and it was diagnosed as Tumour Kidney and operation was done. To the surprise of the surgeon, there was no kidney found in the region. The man has been living without a kidney. A young man was having treatment for enteritis cystitis by a medical man. X-ray revealed appendix in the pelvis. Laparotomy showed that the tip of the appendix was found between the rectum and the bladder. After appendicaecomy the patient recovered Due to the irritation of the rectum and bladder, the patient had symptoms of enteritis and cystitis. A young man of 30 years was operated for acute duodenal ulcer. But it was found to be a case of cancer stomach with secondaries in liver. A girl of about 17 years was admitted for appendicitis and operated. It was found to be a case of small twisted ovarian cyst. A surgeon's daughter had slight pain in the abdomen for a short time and vomitted once. These symptoms disappeared after a few seconds. She had fever from the second day and was ranging 90°F to 102°F for many days. Temperature was the only symptom. There was no other symptoms found. The patient was treated for all types of fevers for about 2 weeks. Specialists in Surgery were called and X-ray taken and reported 'Nil Surgical'. Gynaecologist was brought in and examined and reported 'Nil Particular'. Later a course of emetine was given by a Physician. The temperature subsided. The patient ate her normal food. All of a sudden she vomited and had symptoms of intestinal obstruction. Laparotomy was done then and it was a case of gangreneous appendicitis, which has burst and peritonitis set in and patient expired. Nature has given time for the doctor to diagnose and nature has been fighting for so long a period to combat the disease but of no avail. A doctor's wife was operated on for intestinal obstruction. On laparotomy it was found that both the ovaries are cystic in nature. They were small cysts not haemorrhagic. They were removed and pathological report stated that malignant changes were observed.

Therefore you have to note the importance of laparotomy. Acute abdominal catastrophy has to be differentiated from reflex pain and similar conditions due to extra abdominal causes like pleurisy, T. B. spine, Coronary thrombosis of the heart etc. Treatment of acute abdominal catastrophy consists in the pallative treatment and observation within few hours of attack and laparotomy and operation within 24 to 48 hours. The diagnosis must be made by the surgeon earlier. *What to do? And what not to do?* in such cases. No enema should be given and morphia should be delayed till a diagnosis is made by the surgeon. Enema will stimulate the intestine and agravate the condition. It is common to find that as soon as a patient with or without acute catastrophy comes to a junior practitioner, the doctor gives an enema and finding the result no good, passes on the case to the next doctor, who also tries another enema with the same result. Next the patient is directed to an institution where also the doctor tries another enema. By this time the intestines are distended much and even perforated and peritonitis has set in and patient collapses. There are many cases where we find on laparotomy turpuntine fluid and soap and water in the peritoneal cavity. Even enema should not be given at last 4 or 5 days after such operation on duod or appendicular perforation. Morphia will mask the symptoms and it will be difficult to diagnose. Therefore I give a note of warning not to give enema and to delay morphia till a diagnosis is made by the surgeon. Complications as toxaemia, peritentis have to be treated by giving sylpha drugs like soluseptasive and antibiotics by the needle along with

I. V. glucose saline till these symptoms subside.

What do you do when a patient refuses operation? You may come across some patients who refuse operation. In such cases try only palliative treatment. Minor degree of catastrophies are cured by natural process by forming adhesions with omentum. Put patient on Fowlers' position, apply hot water bag to abdomen, aspirate continuously by tube or by Abbot Miller tube. Intravenous saline and glucose with solusept followed by achromycin 6th hourly. But if the pulse rises surgery is indicated still.

When do you operate? There are two views existing regarding operation. One view is to operate at any time immediately. Another view is to wait till the complication subsides and patient is fit for surgery. The best thing will be to operate within 48 hours. If the pulse is bad and Blood Pressure low, wait for a while to improve the condition and operate.

What do you do when the patient comes in bad condition when peritonitis has set in already? In such cases do not open the abdomen, but make two incisions at the lower abdomen and drain the peritoneal cavity and continue palliation treatment.

Once again I have a warning not to indulge in giving enema and to delay in giving morphia till a diagnosis is made by the surgeon, in all cases of acute abdominal catastrophies.

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CASE NOTES

Viral Encephalitis in Children.

Three cases were presented. The first was a child of 3 years who had fever for one day followed by inability to use the right lower limb. On examination, the child was found to be very irritable and had internal strabismus of both the eyes. The neck was arched and rigid. Kernig's sign was positive All the reflexes were sluggishly present. The plantar response was extensor on both sides. Fundus was found to be normal The Cerebro-spinal fluid was clear, not under tension, with 3 cells per c. m.m. and the sugar content was very low. The W. B. C. count was 8000 per c. m.m. and the differential count was Polymorphs 35, Lymphocytes 51, Eosinophiles 13 and Monocytes 1. Treatment with Achromycin was effective in this case.

The second child, aged 7 years, was unconscious, had high fever and frequent convulsions. with head retraction but no neck rigidity. The cerebro-spinal fluid findings were same as in the above case.

The third child, 10 years of age, gave a history of fever six months ago followed by recurrent attacks of convulsions. In this case also, the plantar reflexes were extensor on both sides. The cerebro-spinal fluid tension was increased, there were 7 cells per c. m.m. and the biochemical finding were normal.

Discussion :

Cases of viral encephalitis are very common and quite a number of such cases have been reported from the Gudiyatham area. These cases have no relation to the pox diseases or any preventive vaccination. Few studies have been made on these cases by the Central Institute for virus diseases at Poona by means of complement fixation tests and agglutinin titres and the virus has been found to be analogous to the Japanese B–type encephalitis virus. These cases are also of interest as they are often mistaken by practitioners as Anterior poliomyelitis due to the fact that there is an intermittent fever followed by a relative lowering of temperature and a slight rise with the neurological deficit symptoms. One can realise here the course of a case of Anterior poliomyelitis where there is an inital fever of onset followed by an apyrexial period closely followed by a smaller hump of temperature with resulting anterior motor neurone type of paralysis of groups of muscles or groups of fibres within the muscles. These cases of anterior poliomyelitis are followed by wasting later on, but in the early stages, if a careful neurological examination is not made the encephalitis may resemble Anterior poliomyelitis. Further, the Cerebrospinal fluid findings are not highly significant or diagnostic. It is only the upper motor neurone type of neurological deficit seen in encephalitis which differentiates between the two conditions. The importance is in the prognosis. Encephalitis cases recover to a great extent and a large majority of them are left with no deficit at all ultimately. Unlike the encephalitis following exanthematous fevers where recovery rate is small and wherein residual features of mental symptoms like idiocy or mental retardation are left behind, this group of viral encephalitis of Japanese B–type met with in this district does not generally lead to residual sequelae. Further, treatment with the broad spectrum antibiotics is useful in these cases in addition to the usual methods of lowering of cerebro-spinal tension and irritation.

Brachial Neuralgia.

Patient S. M., male aged 42 years was complaining of pain in the right upper

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With kind permission from the North Arcot District Clinical Society.

limb radiating from the shoulder region to the finger-tips for the past two months. His history was that while carrying a heavy weight on his right shoulder two months ago, he suddenly felt severe pain in the region of the right neck and right shoulder. Within two days the pain increased in intensity and prevented him from doing his normal work. When the pain became intolerable preventing him from sleeping, he sought medical aid. The pain usually started at the shoulder region above the clavicle and radiated along the inner border of the upper arm and then below the elbow it followed the ulnar border more to the back of the forearm and radiated onto the middle three fingers. The excruciating pain was described by the patient as some current running along the arm and it became worse on exertion of the limb. But it was relieved by abduction of the arm and flexion of the elbow so that the palm was kept resting on the neck. At the onset of this complaint, the patient had noticed twitching of the muscles of the chest and shoulder region.

Going into the past-history, it was found that twenty years back he had sustained a Colles' fracture of the left side after falling from a horse. While in active service in the Army he had contracted syphilis for which he was given the necessary treatment then.

On examination, the patient was a well-nourished individual without anaemia, jaundice or cyanosis. No abnormal pulsations were seen anywhere. Nor were any abnormal movements or twitchings seen. There was no wasting of muscles in neck or the upper extremity. Slight tenderness was elicited above the middle of the right clavicle and over the middle of the upper border of the scapula. The axillary, brachial and radial pulse was found to be normal and equal on both sides. The blood pressure was equal on both sides: 110/80 m.m.

Forward flexion and lateral flexion to the left of the neck caused some pain. Rotation of the neck was also slightly painful. The abductors and flexors of the right arm were less powerful than those of the left arm. The ring, middle and index fingers of the right hand showed diminished touch and pain sensibilities. All the reflexes were normal. Other systems were also normal.

Investigation :—

Blood : R. B C. — 4·2 mil. / c. m. m.

W. B. C. — 10000 / c. m. m.

Diff. count — P : 42, L : 50, M . 2 and E : 6.

Haemoglobin — 80 per cent.

E. S. R. — ½ hour : 3 m. m. and 1 hour : 10 m. m.

Kahn and W. R. — negative.

Urine and motion : Normal.

Cerebro-spinal Fluid :

Clear, not under tension,

Cells : 5 / c. m. m.

W. R.-anti-complementary.

X-Rays of the Shoulder, chest and spine : no abnormalities.

Treatment given : Berin, B. Complex. Irgapyrin, Salicylates,

Infra-red rays etc. These had no appreciable effect.

Lastly local infiltration of novocaine gave the patient relief permanently.

Discussion :

The term 'Brachial neuralgia' is applied to conditions in which pain is experienced along the course and distribution of the brachial plexus. The pain may be accompanied by paraesthesiae, vasomotor disturbances or muscular wasting in the upper limp. Cases of

brachial neuralgia are fairly common and many of them have a prolonged course and well-defined features. The cases at fault in the production of brachial neuralgia are various and have to be considered under the following heads

(1) Causes in the spinal cord: e. g Intramedullary tumour, amyotropic lateral sclerosis, syringomyelia, sub-acute combined degeneration, hemiplegia, myelitis etc.

(2) Causes in the cord space: e. g Extra-medullary tumour, Prolapse of the intervertebral disc, syphilitic pachymeningitis, localised arachnoiditis.

(3) Causes in the vertebral column: Neoplasms, Paget's disease, late and early effects of trauma, ankylosing spondylitis, carries of the cervical spine etc.

(4) Causes around ribs and clavicle: Cervical rib, abnormalities of the first thoracic rib, abnormal thoracic outlet, costo-clavicular compression, scalenus anticus syndrome, aneurysm of the subclavian artery and post and pre-fixed brachial plexus.

(5) Causes in other regions: Superior sulcus pulmonary tumour, other tumours, fractures.

(6) Lesions of the nerves: Idiopathic or toxic neuritis, herpes zoster, tumours of the nerves.

(7) Referred pain: Shoulder disease, angina pectoris, apical pleurisy, thoracic tumours, myalgia.

The differential diagnosis between the different lesions leading to brachial neuralgia is frequently a matter of great difficulty and in fact in many cases it cannot be made with confidence. In coming to a diagnosis the factors to be taken into consideration are many. The nature of the pain, its distribution and the manner in which it may be aggravated or diminished are of importance. So also other sensory phenomena such as paraesthesiae and motor phenomena such as wasting and weakness should be carefully investigated. In the case considered above, it was not possible to come to a definite diagnosis as to the aetiological factor.

The treatment of this distressing condition varies according to the causative factor. In the case under review, various symptomatic measures were tried without any effect, but in the end, the infiltration of novocaine gave him everlasting relief.

Tuberculous Meningitis

Two cases of tuberculous meningitis with all the typical clinical features were presented with a view to emphasise the recent trends in the treatment of this condition. Previously this disease was considered to be almost invariably fatal, but now the outlook has been completely changed by modern theraphy.

The introduction of Streptomycin to therapeutics was the first advancement in the treatment of tuberculous meningitis. It was soon found out that this drug did not cross the blood-brain barrier. Though a little of it reached the cerebro-spinal fluid through the inflamed meninges, the concentration of the drug never attained therapeutic levels. So streptomycin was given intrathecally, along with usual intramuscular injections. The results were definitely better, but obviously it was a laborious treatment putting great strain on the patient as well as on the medical and nursing personnel. Often spinal block developed due to irritation produced by intrathecal streptomycin, necessitating stoppage of this route of administration.

With the advent of Isonicotinic acid hydrazide (I. N. H.) this gloomy outlook changed, because this chemotherapeutic agent was found to cross the blood-brain barrier and therefore its use was very efficacious in combating tuberculous meningitis. It is well known that treatment of tuberculosis with combinations of drugs like streptomycin, P. A. S. and I. N. H. minimises the risk of drug-resistence. This is true in the case of tuberculous meningitis also where a combination of I. N. H. and streptomycin has become the established therapeutic procedure. According to Professor Crofton, at present there is no necessity for any intrathecal streptomycin.

The value of these advances in the treatment of this dire disease can be assessed from the following data. Before the introduction of streptomycin, the mortality of this condition was about 95%. After the use of streptomycin and by employing that antibiotic agent alone, the mortality came down to 75% but with the combined use of streptomcin and I. N. H. the mortality was considerably brought down and is now less than 25%. With earlier and proper diagnosis and adequate treatment along the lines outlined above, the mortality can still further be reduced and the outlook made brighter.

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A Short Account of the Twelth Madras State Medical Conference 57 held at Coimbatore on 23rd and 24th November 1957

THE 12th Madras State Medical Conference, 1957, was held at "Gopal Bagh", Avanashi Road, Coimbatore, on 23rd and 24th of November 1957. This 2 day session began on 23rd November 1957 at 7 A. M. with the arrival of Delegates and Visitors. More than five hundred delegates and visitors from all over the State and neighbouring Kerala State participated in the deliberations. There was a fair sprinkling of lady doctors at the gathering.

The Conference opened with a reception at 7 A. M. and followed by sumptuous breakfast. In hoisting the National Flag at 10-30 A. M. Sri A. Ramalingam Chettiar, the Chairman of Coimbatore Municipality, emphasized the fact that in Free India even businesslike conference begin with due respect to the symbol of our nationhood for which generations of Indians struggled under the leadership of Mahatma Gandhi. Dr. Y. P. Vasudevan out-going President, hoisted the Flag of the Indian Medical Association which comprises three-wicked light surrounded by two snakes, which is the insignia of the Indian Medical Association. Kumari E. G. Jayalakshmi who was awarded the President's Medal for the best performance in Carnatic vocal music at the recent AIR Music Festival. sang the prayer song.

Dr. T. V. Sivanandam, member of the Madras Legislative Council, who is the Chairman of the Reception Committee, read out the welcome address which, appropriately, introduced the Association and the City of Coimbatore and its association with medical conference in the past. He recalled that the second State Medical Conference was held in Coimbatore in the year of our Freedom 1947, which was also a memorable year in the history of the medical association. Dr. Sivanandam, in the course of his address, referred to the introduction of male nurses and said that it had not only brought down the efficiency of general nursing but also impaired the quality of nursing by female nurses. He said that male nurses with adequate practical training in medicine and surgery might be taken as Health Assistants to run rural dispensaries. He further said that Coimbatore City was providing to the students all curriculam of studies except that of medicine, veterinary science and law, and that it was his desire and also of his colleagues at the Conference that their popular Government should come forward to create a suitable climate with mutual understanding and goodwill of the philanthropic citizens of this great city for opening a Medical College and a Veterinary College which would fulfil the requirements for establishing an University at Coimbatore.

In the absence, due to indisposition, of The Hon'ble Sri M. A. Manickavelu, Minister of Public Health, Government of Madras, Sri T. M. Narayanaswami Pillai, Vice-Chancellor of Annamalai University inaugurated the Conference. Calling on doctors to develop what might be called "sixth sense" Sri Pillai said that if a doctor realised that the cure for a disease was not entirely his own handiwork but was the result of certain external factors also, then his practice should be a success. Opposing the idea of an integrated medical system, Sri Pillai requested men with a high standard in the profession and endowed with great knowledge to try to help that system (indigenous) by seeing whether there was anything scientific in that system which

could be adopted and if so it should be imported into their system. Sri Pillai thought too much of specialisation had led to the disappearance of the institution of family doctors. He viewed that a majority of general practitioners should become family doctors and those with high talents could turn to specialisation after a period of service sufficient to give him that basic knowledge. and that generally patients would be anxious to stick on to one doctor and would not like to run after many men of profession.

Dr. Mathuram Santosham, who presided over the Conference, in his Presidential Address denied, once again, that the Medical Association was a trade union of doctors. He declared every doctor is a warrior waging war against disease and death. He observed. "No lone soldier, however valiant and brave he may be, can ever win a war. If the fight against the physical pain and premature death of man is to be carried on to greater and greater success year after year, the many battling soldiers should be bound together as one army. This, then, is the function of the Association—to unite all those who are engaged in the common effort of ending physical pain and premature death". Dr. Santosham took exception to what he called the manner in which the Employees State Insurance Scheme was implemented in Madras and characterised it as a slap in the face of the Indian Medical Association. He said his criticism was not motivated by the fact that the scheme tended to affect adversely the medical practitioner, but it was on account of the effect it would have on 'doctor-patient' relationship. If the Government had accepted the suggestions of the Medical Association in favour of the Panel System the worker who was sought to be benefitted would not have been deprived of the choice of his doctor, he added, and again pleaded for the acceptance of the Panel System. Refering to the National Health Service Scheme in the United Kingdom, Dr. Santosham said such a far reaching measure in medical service would not have been possible without the whole-hearted cooperation of the medical association in that country. In the same way, he wanted the Government here to take medical men into confidence in implementing its public health schemes. Deprecating the practice of building exclusive hospitals for different systems of medicines and running down the allopathic system as alien to our genius, Dr. Santosham said that there could be only one medical science for the whole world just as there was only one physics or one chemistry. Medical practice might have some art about it, he remarked, but medicine was a science and science was universal. While conceding the right of patients to go in for other systems of medicine such as Homoeopathic, Ayurveda Siddha and Unani, he averted that for a State to recognise and subsidise the ancient thoughts and practices which do not stand the test of modern experimental science must be regarded a retrograde step. He pleaded for the establishment of well-set-up consulting rooms for surgeons, physicians and specialists inside the Hospitals even by collecting fees for such consultations.

The Scientific Sessions of the Conference began at 2-30 P.M. on the 23rd of November 1957 lasting till 5 P.M. and resumed again at 10 A.M. on 24th November 1957 lasting the whole day. The Scientific Sessions was inaugurated by Dr. Lt. Col. V. R. Thayumanaswami, the Director of Medical Services, Madras. There was a session of Long Papers on Medicine, Surgery and Midwifery in which eminent medical men took part. There was a Symposium on "Cirrhosis of Liver" at which the leading physicians and surgeons addressed the gathering on the Medical Aspect, Surgical Aspect, Pathological Aspect, Pathology of Infantile Cirrhosis, Paediatric Aspect and Bio-chemical Aspect. and Dr. P. Arunachalam, retired Director of Medical Services, Madras

was the Moderater at the Symposium. There was an interesting Quiz programme, after which short papers were read on Sub Arachnoid Haemorrhage, Recent Advances in Surgery, Gitalin a Cardiac glycoside with wide Therapeutic range, Coccidomycosis of Bone, Management of Diabetic acidosis in children, Problems of Keratomalacia, etc., A committee of judges adjudged the best short paper read, and a Gold Medal to Dr. K. P. Ganesan, M. D., Reader in Medicine, Kasturba Medical College, Mangalore, who read the paper on Gitalin a Cardiac glycoside with wide Therapeutic range, and a Silver Medal to Dr. D. Sundareswaran, MBBS, LO., Hony. Ophthalmic Surgeon, Coimbatore, who read the paper on Problems on Keratomalacia, were awarded on behalf of the Conference.

The Open Session of the Conference met at 9 A.M. on 24th Nov. 1957 at which several resolutions were passed. The Annual meeting of the State Council of the Madras State Branch of the Indian Medical Association was held at 5 P. M. on 23rd November 1957 at which the Annual Report of the Madras State Branch of I. M. A. was presented. Dr. C. Arumugam, MBBS. Dr. V. Vijayaraghavan, LMP, LO, and Dr. C. N. Santhanam, MBBS, were unanimously re-elected as the Hony. Secretary, Joint Secretary and Treasurer, respectively, of the Madras State Branch, I.M.A. for the year 1957–58. Dr. Y. P. Vasudevan, MBBS, BSSC, and Dr. M. Santhosam, MBBS, FCCP, were elected as the two Representatives of the Madras State Branch, I.M.A. on the Working Committee of the Central I.M.A. and Dr. C. Nathamuni Naidu of Ambur and Dr. S. Venkatesan of Tiruchirapalli were elected as the 2 Alternate Representatives to deputise for the regular representatives in case of need.

After reading of messages received from several distinguished persons including Sri P. V. Rajamannar, Acting Governor of Madras, Sri D. P. Karmarkar, Minister for Health, Govt. of India, Sri M. Bhaktavatsalam, Minister, Govt. of Madras, Dr. A. R. Menon, Minister for Health, Kerala State, and the usual Vote of Thanks proposed by Dr. S. G. Rajarathnam, General Secretary of the Conference, the Conference came to an end.

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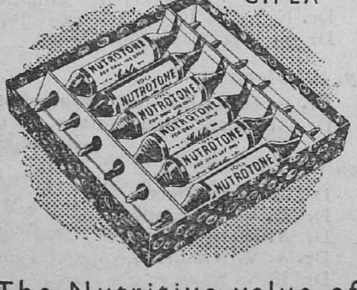

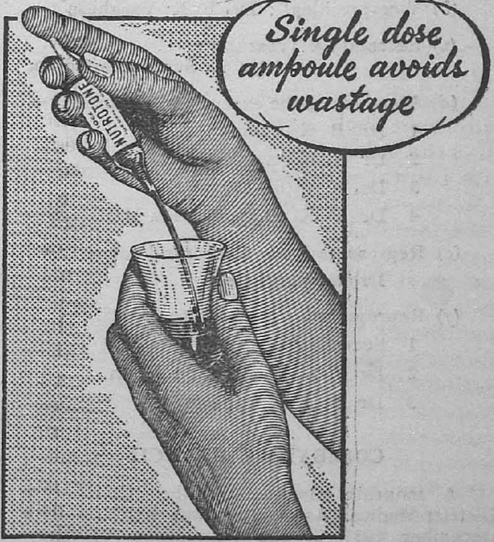

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ASSOCIATION NEWS

CHETTINAD BRANCH

The meeting of the association was held on 9th Dec '57 at the Swedish Mission Hospital, Tiruppatur Dr. S. Subramaniam presided.

Prof. Dr Sophus Von Rosen, Orthopaedic Surgeon, Malmo General Hospital, Sweden addressed the members on " Treatment of Poliomyelitis ".

A film on Congenital dislocation of the hip and its treatment ' was shown.

CHINGLEPUT BRANCH

The General body Meeting of the Branch was held on Saturday the 18th January 1958 in the Municipal Council Hall, Chingleput.

Dr. A V. Rajagopalan, M. S. D. O. R, C. P. S, (LOND) District Medical Officer, Chingleput, addressed the members on ' Some Common Eye conditions met by General Practitioners "

The following office bearers were elected unanimously for the year 1957—58.

(a) President : Dr. K. R. Ganesa Mudaliar

(b) Vice.president : Dr. P K. Varghese

(c) Secretary & Treasurer : Dr A. Sundararaja Rao.

(d) Members of the executive Committee :—

1 Dr B. K Shenoi

2 Dr A. N. Jagadesan

3 Dr. K Vittal Doss Pai

4 Dr T K Thayumanava Mudaliar

(e) Representative to the central council :— Dr K. Varghese

(f) Representative to the state council :—

1 Secretary

2 Dr. P S Ananthanarayanan

3 Dr. P. K. Varghese

COIMBATORE BRANCH

A monthly meeting of the Coimbatore District Medical Association was held on 19th December 1957 in the Association premises. Dr. T V. Sivanandam, MBBS., MLC., President presided.

Dr S. C. Sen, Ex-President, I.M.A. addressed the members on "Some Problems of the Medical Profession."

* * * *

A monthly meeting of the Association was held on Monday the 23rd December 1957 in the Association premises. Dr. T. V. Sivanandam, MBBS., MLC. presided. Prof. Dr. Sophus Von Rosen, Orthopaedic Surgeon, gave an interesting lecture on "Sciatica" and a film show on "Congenital dislocation of hip" Dr. K. R. Venkatesalu, MBBS., supplemented his lecture on ' Sciatica '.

ERODE BRANCH

A meeting of the Association was held on 31-1-58 with Dr. L K. Muthuswamy in the Chair. Major (Dr.) G A. Naidu, MBBS, F D.S (London) spoke on "Common Skin Diseases and their Treatment with Special reference to latest advance in Dermatology."

MADRAS CITY BRANCH

A meeting was held on Tuesday the 28th January 1958 at the Madras, Medical College, Madras.

Dr I. DOUGLAS MILLER, Neurosurgeon, General Hospital, Sydney, Australia and President Royal Australian College, delivered a lecture on "Scope of Neurosurgery"

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The 22nd Annual General Body Meeting of the association was held on Sunday the 5th January 1958 at hotel Dasaprakash, Madras with Dr. R. Sankaran the President in the chair.

The following office-bearers and representatives to the Central and State Council were elected.

President : Dr. P. Alasingari Naidu

Vice-Presidents :

Dr. K. Rama Rau
Dr. V. Vijayaraghavan

Hony, Secretaries .

Dr. B. Rama Rau (In charge of office)
Dr. G. Ramachandramurthy. (In charge of clinical meetings)

Executive Committee :

Dr. M. Santosham
Dr. D. V Venkappa
Dr A. M Sivaraman
Dr. A. V. Avadhani
Dr. K V. Swamy
Dr. V. Samuel
Dr. T. S. Shastry
Dr, A. G. Arumugham
Dr. C. Rama Rao
Dr A. Pattabhi
Dr. Mrs. Rukmani Ammal
Dr. K. L. Narayana Rao

Central Council :

Dr. N A. Iyengar
Dr. K. Rama Rao
Dr. A. V. Avadhani
Dr. T. S. Shastry

State Council :

Dr. V. Samuel
Dr. R. Surya Rao
Dr. M. S. Seshadri
Dr. A. M Sivaraman
Dr. K. V. Swamy
Dr. V. Vijayaraghavan
Dr. C Rama Rao
Dr G, Ramachandramurthy
Dr. U, Sripathy Rao
Dr, A V Avadhani
Dr. C. Ranganathan
Dr. D. V. Venkappa
Dr K. Rama Rao
Dr A. V. Chandrasekhar
Dr. Mrs Rukmani Ammal
Dr, R, Sundararajan
Dr. A. S. Vaidyanathan
Dr. T. S. Doraiswamy

MADURA BRANCH

The monthly meeting of the Association was held on Saturday the 25th January 1958 under the presidentship of Dr. K. Balakrishnan, M.B B S., T D D The members of the Madura Medical Association passed a condolence resolution on the demise of Dr. H. J Masilamani, L M P., Madurai. Dr G. C. Anbunathan, M B., M.R.C.P. (Edin) D.T.M. & (Edin) D.M R. Physician, Christian Mission Hospital, Madurai, delivered a lecture on " Electrolyte and water imbalance in common medical Conditions ".

SOUTH ARCOT BRANCH

The monthly meeting of the branch was held on 21st December 1957 at the Head Quarters Hospital, Cuddalore, Dr M Viswanathan M.D, Honorary Physician, Stanley Hospital, Madras, gave a talk on " Diabetes and its treatment."

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The monthly meeting of the Association was held on Saturday the 18th January, 1958 in the Government Head Quarters Hospital premises, Cuddalore.

Dr. V. Ekambaram M.B., B.S. (Medical Officer Leprosy Treatment and Study centre, Tirukoilur) spoke on " Leprosy control work in India and abroad - (Impressions of a W.H.O. Tour).

SOUTH KANARA BRANCH

A meeting of the Association was held on 4—1—1958 with Dr. G, D. Veliath, presiding. Dr. George Coelho, M.R.C.P. (Lond), Consultant, Pediatrician Bombay, gave an interesting discourse on " Diagnosis and Treatment of Some Common Diseases in Children".

* * *

A meeting of the Association was held on 15—1—1958 with Dr C. P. Kamath, in the chair. Dr. A R. Chankar, M.B , B.S., D.O.M.S, Medical Officer, Mobile Ophthalmic Unit, Belgaum addressed the members on " Mobile Ophthalmic Units, their Uses and Limitations ".

* * *

A meeting of the Association was held on 21—1—1958 with Dr. K. Nagappa Alva, in the Chair Dr. P Robinson, Regional Maternity and Child Health Adviser of World Health Organisation, addressed the members on the purpose and working of the section of WHO.

TIRUCHY BRANCH

The following clinical meeting of the association were held on the following dates with Dr. L. S Ramachandran, M.B.B.S, BSSc., D.T.M, presiding The following lecturers addressed the members on the following subjects.

18—1—58 Dr. N. Vaidyanathan. M.D,
— Tropical Eosonophilia

19—1—58 Dr. G. Athmaram Rao, M.S,
— Cancer of the Breast

21—1—58 Dr. O. Francis, M.D, D.G.O,
— Antenatal Care

23—1—58 Dr. V. Subbaraman, B.A, M.B.B.S, D A.
— Recent Trends in Anaesthesia,

Dr. P, Pankajam, M.B,B.S, D.M.C.W,
— Family Planning

24—1—58 Dr. A. T. John, B.Sc, M.D, D.C.H,
— Management of Tuberculous Meningitis,

The following resolution was moved from the Chair and passed unanimously.

This association feels apprehensive of the change that may take place in the common and national language of the country which will result in the substitution in the scientific and technical education from English to Hindi without proper and sufficient preparations. This will result in great hardship to the study, profession and the general public, specially in the matter of medical science—Hence it requests the State and Central Governments to postpone the time limit prescribed in the constitution to a much later date than 1965 when the country will be prepared to have the change without inconvenience.

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